major social movement in the United States, and the fact that public opinion in most other countries also show a 70%+ favorable attitude to our cause indicates this is a human problem that should not be lightly considered.

Norman Goldstein MD, FACP
Clinical Professor, Medicine
John A. Burns School of Medicine, University of Hawaii

Reply from the President—to the Editor

Dear Norman:

Thank you for sharing your views. I am glad that you took the time to write and tell me where you stand. Knowing your thoughts and ideas about the issues facing our nation is very important to me.

I believe this Administration has made a great deal of progress since I took office over three-and-a-half years ago. I am proud of what we have done to reduce the deficit, expand our economy, improve educational opportunities, and empower hardworking Americans to make the most of their own lives. As we work to build on these accomplishments and to ensure peace and security at home and abroad, I hope you will remain involved.

Sincerely,

Bill Clinton

Comment from the Editor:
What a classic example of a "generic letter!"
Be sure to look for our December Special Issue on Death with Dignity.
Norman Goldstein, MD, editor.

HMA President's Message

John S. Spangler MD

Thanksgiving is a time for everyone to reflect on the events of this past year. We all have a great responsibility to continue a positive attitude about medical practice. During this last year many physicians have been under a great deal of anxiety and stress from the changing ways of the practice of medicine.

We all need to remember the sacrifices many people have done for us during our training and our post graduate training. Maintaining a stable and happy mental state with all the complex surrounding environment takes a very positive attitude.

With the coming year we hope all physicians could organize as one group to allow positive progress with the management of medicine. Let's hope all of us will be thankful for all we have and work towards patient care.

Military Medicine

Preparation of the injured patient for aeromedical evacuation: Environment and Physiology

Benjamin W. Berg, LTC, MC, USA

Aeromedical evacuation of the injured battlefield soldier has become the primary method of transport for battlefield military casualties since the Korean conflict. The lessons learned in armed conflict have been adapted by civilian evacuation and transport teams. Helicopter evacuation has become a central feature of successful trauma management systems throughout the world. In Hawaii transport for definitive care of patients at U.S. mainland facilities requires transport by fixed wing pressurized aircraft. The U.S. Army provides helicopter Medevac capability for the island of Oahu.

Knowledge of physiologic and environmental factors in the aviation environment is essential to the preparation of the patient for safe evacuation to definitive treatment facilities. The acromedical environment affords virtually no opportunity for assessment or therapy en-route, so stabilization prior to transport is critical. Physical stabilization of fractures and other injuries, and physiologic stabilization are ideally accomplished prior to evacuation. If stabilization is not possible expedient transport may be the only available option. A brief description of some primary factors influencing safety and preparation of the patient for air evacuation follows:

Environmental Factors

Rotary Wing Evacuation - Noise, Vibration and altitude factors.
Fixed Wing Evacuation - Hypobaric, hypoxic, low humidity and long duration of transport.
Temperature, humidity, and altitude all contribute to the safety profile of a medical evacuation. Interactions with specific injuries, such as burns, inhalation, and penetrating trauma can be anticipated and adverse effects minimized by careful planning and preparation.

Physiology

Barometric pressure changes which occur are of paramount importance in the safe evacuation of patients with chest tubes, penetrating thoracic trauma, or trapped gas. All chest tubes should be vented to the ambient air, and all intrathoracic air should be evacuated prior to transport. Trapped gas expansion phenomena in any body cavity can be clinically important. Sinus injuries, maxillofacial trauma, and pulmonary injury with air trapping afford opportunities for expansion of air under hypobaric conditions during evacuation. Preparation for management or prophylactic management prior to transportation is advised when adequate time and capability exist.

Relative hypoxemia is invariably present during air evacuation due to decreased PiO_2 in pressurized aircraft cabins, and during flights at altitude in non-pressurized aircraft. The magnitude of the physiologic effect can be determined by estimation of the resulting arterial PaO_2. Pulse oximetry during evacuation may allow adequate estimation of responses to oxygen therapy. Maintenance of oxygen delivery to critical organ beds is accomplished by transfusion and maintenance of oxyhemoglobin saturation of greater than 90%.

Management of ventilated patients is complicated and requires specialized equipment. Evacuation with a cuffed trachcostomy or endotracheal tube in place should be accomplished only after the cuff is inflated with water, or low volumes of air. Transport of ventilated patients should be avoided, if possible. Sophisticated transport ventilators are available. Pressurized gas or electric power sources are required.

Medical School Hotline

Native Hawaiian Culture Across the Curriculum at the John A. Burns School of Medicine

Doric Little, Ed.D.
Coordinator of Student Development

Iwalani Else, M.A.
Recruitment Coordinator, Oahu

The Native Hawaiian Center of Excellence at the John A. Burns School of Medicine (JABSOM) has documented Native Hawaiian culture across JABSOM's MD curriculum. Native Hawaiian culture appears in the following ways:

1. The Problem-Based Learning (PBL) curriculum utilizes elements of Native Hawaiian culture:
   a. PBL format stresses values which are dominant in Native Hawaiian culture.
   b. Native Hawaiian health problems and patients are introduced in the first two years of PBL.
2. Community Medicine experiences, which offer many opportunities to work with Native Hawaiian patients, begin in Unit 1 and continue throughout the first two years.
3. JABSOM students are offered an elective in Native Hawaiian health in their fourth year.
4. Native Hawaiian traditions are important components of annual JABSOM ceremonies and activities.

Problem-Based Learning and Native Hawaiian Values

Because PBL requires small group interaction and stresses group learning, sharing, problem solving and consensus development, Native Hawaiians are not only well suited, but actually flourish in this environment. Four basic Native Hawaiian cultural values, *aloha, ohana, lokahi and kokua*, have been suggested as instrumental in preparing Native Hawaiians to excel in PBL. These four values encompass the following meanings:

Aloha is the term for love, affection, compassion and kindness for one another (Pukui and Elbert, 1986).
Ohana stresses the importance of the family, extended family or friends who are regarded with affection. Within the ohana, there are feelings of unity, shared love and shared responsibility.
Lokahi emphasizes harmony, unity and the ability to work together to solve problems. It is important to Native Hawaiians to cooperate with others and to be respectful of the natural environment.
Kokua refers to mutual help and cooperation which contributes to group unity by fostering cooperation, interdependence, and reciprocity (Look and Braun, 1995).

Aloha, ohana, lokahi and kokua all place emphasis on the group, not on the individual. Over the six years that JABSOM has utilized a PBL format, Native Hawaiian students have excelled. It seems likely that shared values have contributed to this success.

Native Hawaiian Health Problems and Patients in the PBL Format

The health care problems presented in the first two years of the PBL curriculum provide a representative sample of health issues and problems in the state of Hawaii, including those found in the Native Hawaiian population. Each unit addresses some biological, clinical and behavioral health issues of Native Hawaiians who, unfortunately, have the worst overall health risks in the state of Hawaii and continue to have the highest mortality rates (Look and Braun, 1996, Blaisdell, 1996). Medical students study five units of Health Care Problems in their first two years. All include Native Hawaiian health issues and/or patients.

Following is a listing of Native Hawaiian health issues presented by unit at JABSOM. Note that these health problems are not unique to the Native Hawaiian community, but are prevalent.

In Unit 1, "Health and Illness," seven of nine cases deal specifically with issues related to Native Hawaiian health. These include motor vehicle accidents, alcohol abuse, non-seatbelt use, depression, health problems, poor diet, sedentary life-style, cancer, and pregnancy.

Unit 2, "Cardiovascular, Renal and Respiratory Problems," has a total of 15 cases. Nine offer Native Hawaiian Health issues including heart disease, asthma and emphysema related to smoking, severe hypertension and cancer.

Unit 3, "Hematological, Endocrine and Gastrointestinal Problems," has 15 cases with six Native Hawaiian problems. These cases deal with obesity resulting in gastrointestinal problems and adrenal disease, diabetes, leukemia, and colon cancer.

Unit 4, "Locomotor, Nervous System, Brain and Behavior Problems," has a total of 21 cases, nine dealing with Native Hawaiian health issues including osteoporosis, elder issues, alcohol abuse, osteosarcoma, accidents, stroke, mental health disease including psychosis, bipolar disorder, panic disorder with agoraphobia and rheumatoid arthritis.

Finally, Unit 5, "The Life Cycle," includes 14 cases with 12 Native Hawaiian patients. The health issues include prostate cancer, teenage pregnancy, smoking, asthma, drug use, hypertension, cultural/language barriers, child abuse, leukemia, diabetes and pregnancy, alcohol abuse, bipolar disorder and geriatric issues.

In every unit but Unit Two, there is at least one patient with a recognizable Native Hawaiian name. In many cases, patients are identified in the problem as being Native Hawaiian.

Community Medicine offers Students Opportunities to Work with Native Hawaiian Patients

During their first two years, medical students either rotate through or choose to work at community medicine sites which offer a great proportion of Native Hawaiian Patients.

Community Medicine Sites

Queen Emma Clinic , the provider of health services to medically indigent patients, working poor people, QUEST patients, people referred from the emergency room because they have no physi-

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